

RECREATION

Abstract: The Arapaho and Roosevelt National Forests and Pawnee National Grassland are an important recreation destination area for the State of Colorado and the nation. Over eight million people visit annually (approximately six million recreation visitor days), which is in the top ten of all National Forests. The ARNF-PNG is one of eleven National Forests in the U.S. where recreation and other resource uses are strongly influenced by large urban areas. Colorado's Front Range population is expected to reach 2.8 million by 2005, an increase of approximately 29 percent.

In contrast to the population growth, developed recreation use had increased 31.4 percent and dispersed recreation use 42.4 percent. The greatest increase in developed recreation use is public participation in interpretive programs. The greatest increase in dispersed recreation use includes mountain biking, dispersed camping, canoeing and rafting, winter-oriented activities, and cold water fishing.

These users of the forest have indicated their priority issues regarding recreation opportunity settings, developed recreation opportunities, dispersed recreation opportunities, program administration and areas of national significance.

Recommendations in this section factor in visitor-identified issues, management concerns and the large increases in both developed and dispersed recreation use. Proposed actions are based upon experienced budget levels estimated for each of the proposed alternatives. Recommendations dealing with trail use including winter use can be found in the travel management section of this *FEIS*.

LEGAL FRAMEWORK

Land and Water Conservation Fund Act (Act of September 3, 1964): Section 1—Purposes. (B) “The purposes of this Act are to assist in preserving, developing, and assuring accessibility to all citizens of the United States of America...such quality and quantity of outdoor recreation resources as may be available and are necessary and desirable...by... (2) providing funds for the federal acquisition and development of certain lands and other areas (16 USC 4601-4).”

Section 4(b) Recreation User Fees. “Each federal agency developing, administering, providing or furnishing at federal expense, specialized outdoor recreation sites, facilities, equipment or services shall, in accordance with this subsection (d) of this section, provide for the collection of daily recreation use fees...” (D) “All fees established pursuant to this section shall be fair and equitable...”

Architectural Barriers Act (Act of August 12, 1968): Section 4152. “Standards for design, construction, and alteration of buildings...will be prescribed to insure whenever possible that physically handicapped persons will have ready access to, and use of, such buildings.”

Americans with Disabilities Act (Act of July 26, 1990): Section 504—Item (b) Contents of Guidelines “...shall establish additional requirements, consistent with this Act to ensure that buildings, facilities, rail passenger cars, and vehicles are accessible, in terms of architecture and design, transportation, and communication, to individuals with disabilities..”

National Trails System Act (Act of October 2, 1968): Section 2—Statement of Policy. (A) “In order to provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of, public access to, travel within,...trails should be established...(ii) secondarily, within scenic areas and along historic travel routes of the Nation, which are often more remotely located.”

AFFECTED ENVIRONMENT

KEY FEATURES

The ARNF-PNG is a major recreation destination point with use in the millions due to the following factors:

- It is close to Colorado's Front Range population of approximately 2.4 million (1994).
- Modern, direct access is available from Denver International Airport, two major interstate highways (I-70, I-25) and many state, county and forest roads.
- Eight wilderness areas are within the Forests' boundaries.
- The Forest has several areas of national significance—the Cache la Poudre Wild and Scenic River (the only one in Colorado), the Arapaho National Recreation Area, several National Scenic Byways, the Pawnee National Grassland (a nationally recognized birding area), and the Continental Divide National Scenic Trail.
- Several major ski areas with "world class" ratings are located on the Forests.

PUBLIC ISSUES AND MANAGEMENT CONCERNS

Recreation issues (developed from "open house meetings" and written comments) and management concerns related to the Forests and Grassland (see Appendix A of this *FEIS*) fall into the following four broad categories. These issues were used in developing the recreation emphasis of each alternative.

Recreation Opportunity Settings

- Provide for many recreation opportunity settings that support a range of recreation activities.

- Provide for a balance between semiprimitive nonmotorized and semiprimitive motorized settings to meet both motorized and nonmotorized use now and in the future.

Developed Recreation

- Attempt to provide additional facilities for recreational vehicles, hiking trails, picnic areas, mountain bike trails, OHV routes, parking, and campgrounds on both the Forests and Grassland.
- Develop campsites to provide for a variety of users and separate users where feasible and appropriate.
- Locate additional developed recreation opportunities to provide quality opportunities where the impacts on resources such as wildlife habitat and water quality can be minimized.
- Provide universal design and access to all recreation facilities.

Dispersed Recreation

- Continue to allow dispersed camping, but consider designated sites to mitigate resource concerns.
- Concentrate efforts on providing for low-impact activities such as mountain biking, walking, crosscountry skiing and snowshoeing.
- Increased use will lead to increased conflicts between uses.
- Undertake efforts to provide for backcountry motorized recreation opportunities while protecting resource values.

Administrative

- Develop limits of acceptable change to decide when to take action and what actions to take to protect resources from the increased use.
- Determine reasonable capacities and control use where necessary to minimize damage to recreation settings.
- Recreation conflicts in the intermix are increasing.

- Pay increasing attention to the impacts of recreational use. Consider permit systems and other forms of controlling use or numbers.
- Provide a well-maintained trail system for a variety of trail activities and challenge levels.
- Provide for a variety of quality education and interpretive opportunities.

Areas of National Significance

- Provide for the connecting section of the Continental Divide National Scenic Trail.
- Provide quality facilities and opportunities at all areas of national significance.
- Coordinate with Rocky Mountain National Park to provide park visitors overnight and day-use opportunities.

The rest of the affected environment section is organized by these five public issue/management concern categories. It provides information on current recreation opportunities and facilities, condition of existing facilities, present and projected future use, and need for reconstruction or new facilities.

RECREATION OPPORTUNITY SETTING

People pursue different recreation activities requiring different recreation environments or settings so they can enjoy themselves to the fullest. Some people prefer to recreate in more developed areas where there are more facilities, better access, and opportunities to interact with other recreationists. Others prefer more primitive settings where there is little evidence of other people, more difficult access, and opportunities for self-reliance. The Forest must try to provide a mixture of different settings to meet the needs of these recreationists and others. A classification system called the Recreation Opportunity Spectrum (ROS) is used to help describe different recreation settings and to help guide management activities. Table 3.105 describes the desired recreation setting for each ROS land class and displays the acres currently being managed in that class.

In August 1993 Colorado State University completed a study of user preferences for recreation opportunity settings by contacting 365 Colorado Front Range residents. Table 3.106 shows which settings people said they preferred to use and the settings they actually used. The significance of Table 3.106 is that although people stated a preference for areas of more limited access and less elaborate facilities they used more developed areas of the Forest which had better access.

Table 3.105 A Description of Recreation Opportunity Settings and Existing Acreages (ROS Land Classes), ARNF-PNG, 1995

ROS Land Class	Description of Recreation Opportunity Setting	ROS Acres
Primitive	Very high probability of solitude, closeness to nature, challenge and risk, essentially unmodified natural environment; minimal evidence of others; few restrictions evident; nonmotorized access and travel on trails or cross country; no vegetation alterations.	40,812
Semiprimitive Nonmotorized	High probability of solitude, closeness to nature, challenge and risk; natural appearing environment; some evidence of others; minimum of subtle onsite controls; nonmotorized access and travel on trails, some primitive roads or cross country; vegetation alterations to enhance forest health—few and widely dispersed.	123,915
Semiprimitive Motorized	Moderate probability of solitude, closeness to nature, high degree of challenge and risk using motorized equipment; predominantly natural appearing environment; few users but evidence on trails minimum and subtle on-site controls; vegetation alterations few, widely dispersed and visually subordinate.	36,426
Roaded Natural	Opportunity to be with other users in developed sites, little challenge or risk; mostly natural environment as viewed from roads and trails; moderate concentration of users at campsites; some obvious user control; access and travel is standard motorized vehicles; vegetation alterations for recreation and visual objectives.	252,337
Roaded Modified	Opportunity to get away from other users, easy access, little challenge or risk; substantially modified environment (roads, slash, etc.); little evidence of other users except on roads; little regulation of users except on roads; standard motorized use; vegetation alteration to enhance recreation setting.	521,321
Rural	Opportunity to be with others is important as facility convenience, little challenge or risk except activities like downhill skiing; natural environment is culturally modified; high interaction among users; obvious on-site controls; access and travel facilities are for intensified motorized use.	210,894

Table 3.106 A Comparison of Recreation Settings Preferred with Settings Used by Colorado Front Range Residents, 1993

Recreation Opportunity Setting	Percent of User Responses	
	Setting Preference	Setting Used
Primitive	33.7	16.0
Semiprimitive Nonmotorized	18.1	14.0
Semiprimitive Motorized	14.0	16.0
Roaded Natural	21.6	27.0
Rural	12.6	27.0
TOTAL	100.0	100.0

DEVELOPED RECREATION

Developed recreation facilities include campgrounds, picnic areas, downhill ski areas (see the Existing and Potential Ski Areas section), and interpretive service centers or sites. These are distinctly defined areas where facilities are provided by the Forest Service for concentrated public use. They are usually in rural or roaded natural settings.

Existing Facilities, Facility Capacity

Table 3.107 shows the number of existing developed sites with their use capacities for the managed season (generally, Memorial Day to Labor Day).

Table 3.107 A Summary of Existing Developed Recreation Facilities, ARNF-PNG, 1995

Type of Development	Number of Sites ^a	Number of Units ^b
Campground	45	1,293
Picnic Ground	43	286
Interpretive Sites	14	Not applicable

^a The numbers represent different developed areas.

^b The numbers indicate total individual units.

Existing Facility Condition

Some facilities and associated resources are in poor condition due to lack of maintenance, priority on new construction, and heavy use. Figures 3.17 through 3.20 are representative examples of facilities and resource conditions forestwide.



Figure 3.17. A developed campsite showing deteriorated traffic barrier, lack of ground cover and lack of accessibility, ARNF, 1995

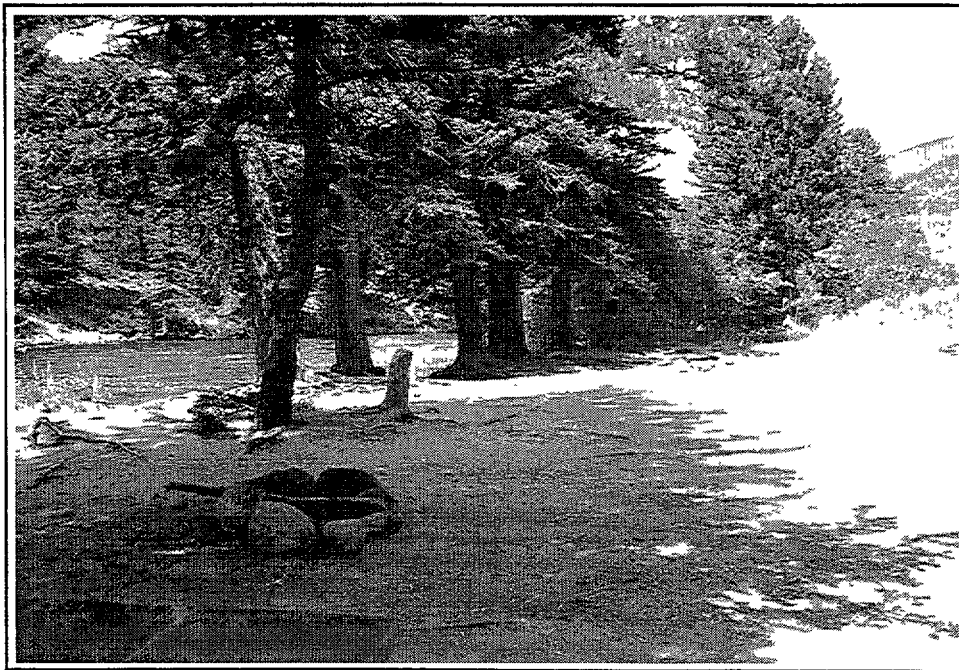


Figure 3.18. A developed picnic site showing loss of ground cover, exposed tree roots, and a crude fire ring, ARNF, 1995.

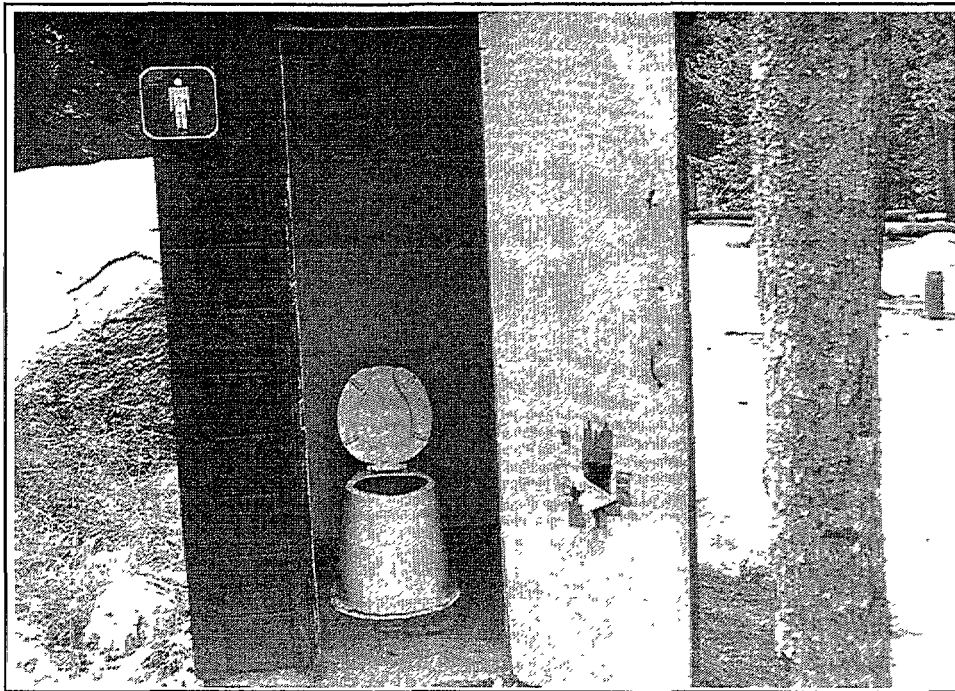


Figure 3.19 A toilet facility that lacks accessibility, ARNF, 1995 (Note the bullet holes through the door.)

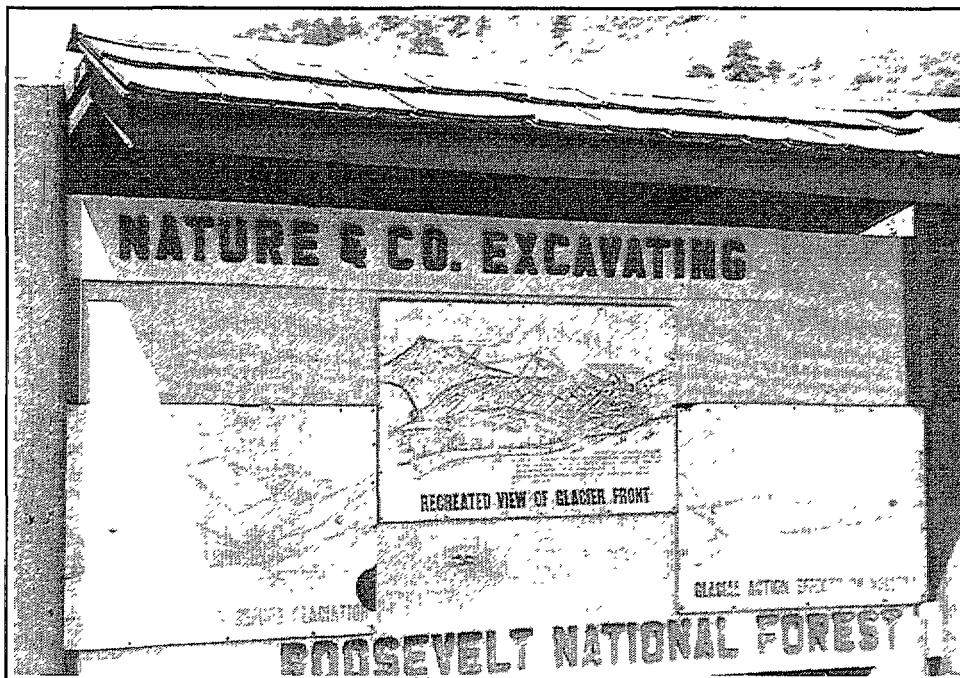


Figure 3.20. A weathered interpretive site, ARNF, 1995.

Present Use, Future Use Trends

Developed recreation use was 854,500 RVDs in 1995 and is projected to rise to 1,122,800 RVDs by the year 2005. This is an increase in use of approximately 31.4 percent for this period, higher than the projected population growth rate (29 percent). Table 3.108 shows the present and projected use for the principal developed recreation activities. Current use is at a level where facilities are filled on most weekends from Memorial to Labor Day. Facilities are also filled on many weekdays at developed sites within areas of national significance. When the facilities are "filled," visitors are usually turned away. User priority for developed activities (as indicated by levels of use and preference) is essentially the same for state recreation areas as on the Arapaho and Roosevelt National Forests and Pawnee National Grassland (Ceruli Associates 1996).

Need for Reconstructed and New Facilities

Based on the expected increase in use and on field information, meeting projected use by 2005 would require reconstruction of 550 to 700 units in campgrounds and 75 to 150 units in picnic areas as well as new construction of 150 to 250 units in campgrounds and 75 to 150 units in picnic areas. Reconstruction improves the condition of existing facilities but does not increase capacity.

Table 3.108 Present and Future Developed Recreation Use, ARNF-PNG, 1995-2005

Activity/Activity Group	Forest and Grassland			Deficit or Need to Reconstruct Units	Deficit or Need for New Unit
	1995 Use ^a	Est. Use 2005 ^a	Chg. 1995-2005 ^b		
Developed Camping	557.6	676.7	21.4%	550-700	150-250
Picnicking	135.1	180.1	33.3%	75-150	75-150
I&E Activities ^c	161.8	266.0	64.4%	Maintain, enhance, increase	
Total Developed Recreation	854.5	1,122.8	31.4%		

^a In thousands of recreation visitor days (RVDs)

^b The change in use from 1995 to 2005 equals the percent increase in use for that period

^c Public information and education

DISPERSED RECREATION

Dispersed recreation occurs on areas of the Forests and Grassland outside developed recreation sites. Activities include wilderness, trail use, fishing, hunting, river rafting, mountain biking, hiking, winter sports, OHV use and dispersed camping. Use generally occurs in rural, roaded natural, semiprimitive motorized and semiprimitive nonmotorized settings. Other than fishing, river running, and OHV use, most activities can be enjoyed anywhere on the Forests and Grassland. Generally, a large surplus of land is available with the potential to support additional dispersed activity opportunities well into the future. However, the key limitation to participating in dispersed recreation activities is access to dispersed areas, parking availability, limited dispersed campsites, and the availability of information on dispersed opportunities.

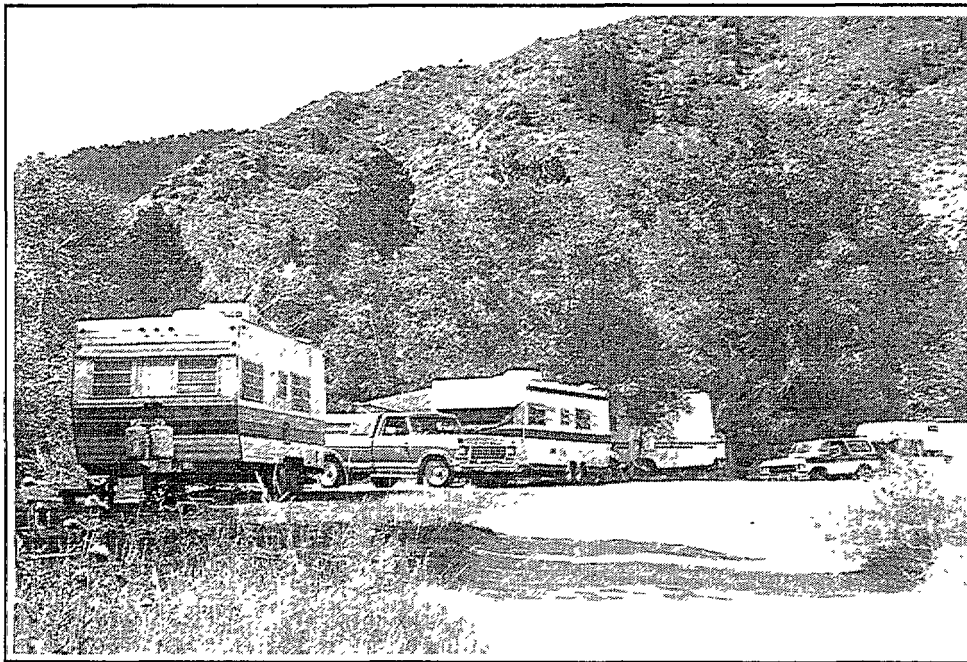


Figure 3.21. A typical dispersed camping area where there are no designated dispersed sites, ARNF, 1995.



Figure 3.22. An undesignated dispersed camping area showing the effects of unrestricted use: loss of ground cover, tree damage, firewood scavenging and home-made fire ring, ARNF, 1995.

Existing Support Facilities, Facility Capacity

Table 3.109 shows the present number of existing dispersed recreation support facilities to provide opportunities.

Table 3.109 Summary of Existing Dispersed Recreation Support Facilities, ARNF-PNG, 1995

Type of Support Facility	Amount
Trailhead Parking Capacity	500-700
Designated Campsites	2 areas, 62 sites
Boat Ramps	8 Ramps
Angling Access	20 Points
OHV Routes	Unknown

Existing Support Facility Resource Condition

Many trails and trailheads are in poor condition for reasons similar to those for developed sites. The major concern with dispersed recreation use effects on resource conditions is in riparian areas, wherever level spots are found along roads, and by water features. Figures 3.21 and 3.22 are current examples of dispersed recreation support facilities and resource conditions.

Present Use, Future Use Trends

Table 3.110 shows the present and projected use for the principal dispersed recreation activities. Use was 1,745,200 RVDs in 1995, and is projected to rise to 2,484,900 RVDs by 2005. This projected increase in use is approximately 42.4 percent, almost one and a half times the projected population growth for the same period (29 percent).

The activities that currently have the highest amount of use, dispersed camping, trail use, and cold water fishing, will continue to have the highest amount of use in 2005. Mountain biking, if current trends continue, will soon account for as much trail use as hiking and walking. Canoeing/rafting, and snow vehicle use rates are also expected to increase almost twice to three times the expected population rate increase. Many of the other activities are increasing at approximately the same percentage rate as the population. Water sports are expected to decrease. "Other hunting" is expected to decrease slightly. The study conducted by Ceruli Associates (1996), while slanted towards Colorado's state parks, also demonstrates that fishing, nonmotorized trail use, and water-based recreation activities are preferred the most. There are other dispersed recreation activities preferred at state park areas that are not currently provided by the Forest. State parks are often close to urban areas, and their facility development levels and accessibility have an urban character.

Table 3.110 Present and Future Dispersed Recreation Use, ARNF-PNG, 1995-2005

Activity/Activity Group	Forests and Grassland		
	1995 Use ^a	Est. Use 2005 ^a	Chg. 1995-2005 ^b
Disp. Camping	760.9	1,214.4	59.6%
Land Craft (OHV, etc.)	54.3	61.6	13.4%
Canoe/Raft	28.3	51.2	80.9%
Water Sports	23.9	18.5	-22.6%
Mtn. Bikes	78.9	150.3	90.5%
Hike/Walk	230.7	253.8	10.0%
Horseback	26.4	27.3	3.4%

Aggreg Trail Use	336.0	431.4	28.4%
Snow Vehicles	39.1	62.2	59.1%
XC Ski	51.3	57.1	11.3%
Big Game Hunting	140.5	186.2	32.5%
Other Hunting	20.3	19.7	-3.0%
Cold Water Fishing	264.9	346.9	31.0%
Ice Fishing	16.3	24.3	49.1%
Gather Forest Products	9.4	11.4	21.3%
TOTAL DISPERSED RECREATION	1,745.2	2,484.9	42.4%

^a Thousands of recreation visitor days (RVDs)

^b The change in use from 1995 to 2005 equals the percent increase or decrease for that period

Need for Reconstructed and New Support Facilities

To meet the dispersed recreation demands detailed in Table 3.110, dispersed recreation facilities should focus on dispersed camping, trails and trailheads for a variety of uses, and on improving opportunities for water-related activities. The differences between alternatives in roads, trails, and other travelways are described in the Travel Management Section. This would include such activities as driving for pleasure and trail use. Based on the information in Tables 3.109 and 3.110, meeting projected use by 2005 will require reconstruction of 750 to 800 existing parking spaces and construction of 375 to 400 new parking spaces at trailheads, designation of 500 to 700 additional dispersed camping sites for resource protection, and provision of additional boating, rafting, and fishing access in amounts not yet known.

ADMINISTRATIVE

Information is insufficient to properly address administrative issues and concerns at this time, but will be gathered using the Monitoring and Evaluation Strategy described in the *Forest Plan* to address the following topics:

- *limits of acceptable change* as an effective measure of resource and facility condition to enhance management of the recreation facilities and resources
- establishing the basis for resolving conflicts among recreation uses and user groups
- inventorying the amount and "capacity" of existing fishing access and establishing guidelines for additional access when needed
- determining the extent of, and when and where motorized effects may occur

- establishing the basis for determining the "challenge level" of roads and trails to identify clearly the range of experiences available to recreation users
- establishing the process for partnerships with various user groups to enhance recreation resource management and the providing of opportunities on a sustainable basis
- determining use levels, and user satisfaction by locations on the Forests and Grassland

AREAS OF NATIONAL SIGNIFICANCE

Specific actions to address needs and to maintain and enhance areas of national significance are included in each alternative. Facility reconstruction, new facilities, and operations and maintenance for areas of national significance were a priority for funding.

ENVIRONMENTAL CONSEQUENCES

This section is organized in seven subsections. First, the recreation emphasis of each alternative is described to help the reader compare the effects between alternatives. The next three subsections report the environmental effects on recreation settings, developed recreation, and dispersed recreation. Ground disturbance resulting from alternative implementation is listed in the next section. The subsection following that describes how other resource management may affect recreation. The final subsection outlines cumulative effects.

ALTERNATIVE DESCRIPTIONS

A description of the recreation emphasis for each alternative is as follows:

Alternative A (Current Management Practices) is designed to maintain the current variety of recreation opportunity settings and provide facilities for current levels of use. Some existing facilities will be reconstructed and where there are critical shortages for dispersed recreation opportunities, a limited amount of new facility construction is provided.

Alternative B (Preferred Alternative) maintains a mixture of recreation settings emphasizing semiprimitive nonmotorized and roaded natural opportunities. It emphasizes reconstructing most existing facilities first and then constructing new facilities to meet future demand.

Alternative C emphasizes roaded modified recreation settings. The high priority is to construct new facilities, particularly campgrounds, with less emphasis on reconstructing existing facilities. It also features off highway vehicle (OHV) use and increased trailhead parking capacity.

Alternative E is similar to Alternative B but with much more emphasis on semiprimitive motorized settings. It also emphasizes reconstructing most existing facilities first and then constructing new facilities to meet future demand.

Alternative H limits and regulates recreation use to minimize environmental disturbance. The emphasis for recreation opportunity settings is primitive. The alternative mitigates dispersed recreation use by constructing dispersed campground sites, reconstructing and constructing trailheads, and emphasizing minimal impact behavior through interpretive programs. It does little for developed recreation or motorized uses.

Alternative I is similar to Alternative C except for recreation settings. The emphasis for recreation settings is semiprimitive motorized and roaded natural rather than roaded modified. It has the same emphasis for developed and dispersed recreation as Alternative C.

RECREATION OPPORTUNITY SETTING

Tables 3.111 and 3.112 summarize recreation opportunity setting allocations for each alternative. Refer to Table 3.105 for a description of the individual recreation settings. The alternatives with the most acres in the primitive and semiprimitive settings feature recreation uses with more solitude and challenge and less evidence of other people in a generally unmodified environment. Alternative H has the most acres in these settings followed by E, B, I, A, then C. The Colorado State University (CSU) survey described earlier said that approximately 66 percent of the survey respondents preferred these types of settings and 46 percent used these types of settings.

Alternative C has the most acres in settings where lower levels of challenge and risk are generally found, where there will be more evidence of humans, and a higher level of interaction between users. Alternative A has the next most acres, followed by I, B, E, and then H. Thirty-four percent of the CSU survey respondents said they preferred these types of settings and 54 percent said they had used these types of settings. It appears that all alternatives have sufficient area in each setting to address people's preferences or actual use patterns. This would include most recreation uses which are not specifically tied to developed or dispersed recreation facilities. Developed and dispersed recreation facilities are described in the next sections.

Table 3.111 A Summary of Recreation Opportunity Spectrum (ROS) Acres as an Indication of Recreation Settings by Alternatives, ARNF, 1995-2005

ROS Class ^a	Alternative					
	A	B	C	E	H	I
Primitive	40,812	71,748	14,949	25,588	447,489	4,722
SPNM ^b	123,915	206,137	72,595	148,528	51,395	13,193
SPM ^c	36,426	60,324	23,292	228,288	47,110	250,356
Roaded Natural	239,206	494,386	150,364	470,419	322,899	313,415
Roaded Mod	521,321	102,897	673,162	62,116	35,205	353,717
Rural	31,486	57,674	58,804	58,227	89,068	57,763

^a Wilderness acres (pristine, primitive, semiprimitive) are not included.

^b Semiprimitive nonmotorized

^c Semiprimitive motorized

Table 3.112 A Summary of Recreation Opportunity Spectrum (ROS) Acres as an Indication of Recreation Settings by Alternatives, PNG, 1995-2005

ROS Class	Alternative					
	A	B	C	E	H	I
Roaded Natural	762	13,131	3,394	4,277	192,542	3,007
Rural	191,779	179,410	189,265	188,265	0	189,535

DEVELOPED RECREATION

Table 3.113 shows the estimated amounts of developed facility reconstruction and construction under each alternative for the full implementation and experienced budget levels. The needs for each facility type from Table 3.108 are given for comparison.

No alternative fully meets the anticipated need based on the increase in demand even at the full implementation budget level. This means that during times of peak use some users cannot use the types of developed recreation facilities they want. It also suggests a higher potential for resource damage in and around developed sites due to overuse and overflow use in the immediate vicinity. Each alternative emphasizes different types of facilities so the type of use that will be in shortest supply will be different. Alternatives A, B and E emphasize campground and picnic units at a high level under either budget level. Alternatives C and I emphasize constructing new campground units and some reconstruction of picnic units but do little reconstruction of existing campground units. Alternative H closes some existing campground units while adding a few new units.

At the full implementation budget level, Alternative E comes closest to meeting the first decade's construction and reconstruction needs. Alternative B is the next closest, followed by A, C and I. Alternative H does little to meet either need at either budget level. At the experienced budget level, there is no real change in ranking between alternatives. Although Alternatives B and E

Table 3.113 Developed Recreation Facilities Reconstructed and Constructed Under Full Implementation and Experienced Budget Levels, Fiscal Years 1995 - 2005

	Alternative					
	A	B	C	E	H	I
RECONSTRUCTION	Full/Experienced ^a					
Campground units (Need = 700-800 Units)	449/449	600/480	89/89	806/806	-4/-4	89/89
Picnic Units (Need - 100-200 Units)	59/59	135/108	24/24	170/47	31/31	24/24
Interp Sites	6/6	15/12	1/1	20/0	4/4	1/1
NEW CONSTRUCTION	Full/Experienced					
Campground units (Need - 200-250 units)	0/0	178/0	200/200	0/0	9/9	200/200
Picnic Units (Need - 75-125 units)	0/0	68/0	0/0	0/0	2/2	0/0
Interp Sites	5/5	5/0	5/5	0/0	5/5	5/5

^a A negative number indicates that facilities will be closed

would have no new construction of facilities, their emphasis on reconstructing the existing campground and picnic units still meets more of the total need. Alternatives A, C, and I are the next closest in meeting total need.

DISPERSED RECREATION

Table 3.114 shows the estimated amounts of dispersed facility reconstruction and construction under each alternative for the full implementation and experienced budget levels. The needs for each facility type from the section on Affected Environment, Need for Reconstructed and New Facilities, are given for comparison.

As with developed recreation, no alternative fully meets the need for dispersed recreation support facilities. The need to reconstruct existing dispersed sites and construct new sites was based upon resource condition assessments by recreation field staff. Field staff will verify actual reconstruction levels for dispersed sites during project planning. The budget level for recreation

greatly influences which alternative best meets the overall construction and reconstruction needs for these dispersed recreation sites.

At the full implementation budget level, Alternatives E and B come closest to meeting the overall needs. Alternative H is the next highest alternative followed by Alternative A. Alternatives I and C meet the needs at the lowest level. Alternative H best meets the need for dispersed recreation at the experienced budget level. Alternative A is next, followed by C and I. Alternatives E and B would not meet any of the identified needs at the experienced budget level.

Table 3.114 Dispersed Recreation Facilities Reconstructed and Constructed Under Full Implementation and Experienced Budget Levels, Fiscal Years 1995 - 2005

	Alternatives					
	A	B	C	E	H	I
RECONSTRUCTION	Full/Experienced					
Disp. Site Desig. (Need 500-700 sites)	0/0	600/0	1/1	1/0	0/0	1/1
TH Vehicle Capacity (Need 750-800 spaces)	316/316	750/0	0/0	750/0	70/70	50/50
NEW CONSTRUCTION	Full/Experienced					
Disp. Site Desig. (Need 250-350 sites)	154/154	300/0	17/17	705/0	685/685	3/3
TH Vehicle Capac. (Need 375-400 spaces)	350/350	380/0	350/350	390/0	350/350	350/350

GROUND DISTURBANCE

Key information for assessing environmental effects on recreation and on other resources is the number of units constructed or reconstructed, their location, and the potential land area (acres) disturbed. Table 3.114 summarizes, by alternative, the units reconstructed or constructed based on the full implementation budget and the potential acres disturbed for the first decade (1995 to 2005) and the annual average. The range of acres disturbed forestwide is from approximately 15 to 75 acres annually. Total acres disturbed under any of the alternatives are less than .001 percent of the total Forest area. Given this small acreage, the potential for area/location conflicts (effects) from other resource management activities are considered to be low, short term and indirect. The level of construction and reconstruction under the experienced budget level is even less, so the effects would also be less. It is important to point out that proposed actions will occur in existing use corridors where impacts have occurred and been mitigated where possible. It should also be noted that reconstruction is intended to further mitigate recreation development and use impacts at existing areas and sites.

Table 3.115 Forestwide Summary of Proposed Recreation Actions^a and Potential Acres Disturbed^b by Alternatives at Full Budget Level, Fiscal Years 1995-2005

	Alternatives											
	A		B		C		E		H		I	
	#Units	Acres	#Units	Acres	#Units	Acres	#Units	Acres	#Units	Acres	#Units	Acres
Rec. Reconst.												
Campground Units	449	89.8	600	120.0	89	17.8	806	161.2	-4	-0.8	89	17.8
Picnic Units	59	11.8	135	27.0	24	4.8	170	34.0	31	6.2	24	4.8
Trail Miles	144	72.0	573.6	286.8	154	77.0	573.6	286.8	213.4	106.7	154	77.0
TH Vehicle Capacity	316	6.3	750	15.0	0	0.0	750	15.0	70	1.4	50	1.0
Disp. Site Designation	0	0.0	600	18.0	1	0.0	1	0.0	0	0.0	1	0.0
OHV Miles	0	0.0	1	0.7	0	0.0	1	0.7	0	0.0	1	0.7
Interp. Activities	6	0.0	15	7.5	1	0.0	20	0.0	4	0.0	1	0.0
Total Existing Acres		179.9		475.0		99.6		497.8		113.5		101.4
Rec. New Const.^c												
Disp. Site Designation	154	4.6	300	9.0	17	0.5	705	21.2	685	20.6	3	0.1
Trail Miles	25	12.5	50.5	25.3	0	0.0	47	23.5	10	5.0	0	0.0
TH Vehicle Capacity	350	7.0	380	7.6	350	7.0	390	7.8	350	7.0	350	7.0
OHV Miles	0	0.0	42	30.7	42	30.7	42	30.7	0	0.0	42	30.7
Campground Units	0	0.0	178	35.6	200	40.0	829	165.8	9	1.8	200	40.0
Interp. Activities	5	0.0	6	3.0	5	0.0	12	0.0	5	0.0	5	0.0
Picnic Units	0	0.0	68	13.6	0	0.0	8	1.6	2	0.4	0	0.0
Total New Acres		24.1		124.8		78.2		250.5		34.8		77.8
Decade Total Acres		204.0		599.8		177.8		748.3		148.3		179.1
Annual Total Acres		20.4		60.0		17.8		74.8		14.8		17.9

^a Priorities are the following: 1. Reconstruct; 2. New, with new actions consistent with deficit and significance of issues affecting the recreation resource and opportunities available

^b Potential acres disturbed is based on a standardized set of coefficients for space required for constructing or developing facilities. (See Appendix B for information on space requirement coefficients.)

^c New projects will be initiated based on prioritization guidelines, national significance, concentrated use impacts and available funding

EFFECTS OF OTHER RESOURCE MANAGEMENT ON RECREATION

Assumptions made prior to conducting the Environmental Effects assessment include:

1. All alternatives follow *Forest Plan* management area direction, standards and guidelines, and "best management practices."
2. Proposed new development and dispersed recreation activities are to be located to avoid potential negative effects from other resource management activities.
3. Reconstruction work is intended to address poor recreation facility and resource conditions. Effects of these actions are designed to improve conditions and mitigate "historic" impacts or effects on recreation facilities and settings.
4. The Arapaho and Roosevelt National Forests and Pawnee National Grassland will monitor and evaluate resource conditions, use levels, and user (customer) satisfaction so that adjustments to management strategies can be made in a timely manner (Chapter Four of the *Forest Plan*).

The estimated potential effects of other resource management activities on recreation are based on a combination of field staff inputs in conjunction with a broad-scale landscape evaluation using a series of forest management activity map overlays. Maps of resource management areas and management activities were compared to maps of proposed recreation activities for each alternative. The extent and type of potential effects on proposed recreation actions were estimated and recorded.

Effects on Recreation from Timber Management

The overall effect on recreation from timber management regardless of the alternative is estimated to be predominantly low. This includes Management Areas 5.5 and 4.3. The primary effect is the potential for increased dust, noise, and traffic hazards from timber sale activities. These are considered to be small localized impacts of short duration. Recreation settings, as measured by ROS, were designed to be compatible with other management activities. Timber sales would be designed to be compatible with the desired recreation setting.

Timber management activities located on suitable timberland may also surround or be adjacent to developed recreation sites with the potential for disturbances and unpleasant views. Table 3.116 shows what percentage of sites have this potential.

Alternative C has the most potential to disturb developed recreation sites followed by I, A, and B. However, these effects are expected to be minimal due to requirements to meet forestwide standards and guidelines.

Table 3.116 Sites Potentially Affected by Timber Management Activities, Full Budget Level

Types of Sites	Percent Potentially Affected by Alternative					
	A	B	C	E	H	I
Campground	7.7	7.6	18.4	None	None	11.5
Picnic	1.4	None	10.1	None	None	1.4
Interpretive	20.0	6.7	20.0	None	None	20.0

Timber management activities may preclude or limit dispersed site locations but in comparing suitable timberland to the proposed dispersed site locations the number of sites potentially affected would be less than fifteen for any alternative. Since this is a small percentage of the total number of potential dispersed sites and because timber management activities must be designed to meet the recreation setting of the area, the potential effects are estimated to be minor and shortterm.

Effects on Recreation from Oil and Gas Leasing

Due to the location and limited number of oil and gas leases, the potential effects from exploration and operation on recreation opportunities is considered to be low. The estimate of low effects is the same for recreation settings, dispersed recreation and developed recreation. There is the potential for temporary access closure, increased dust, noise, and traffic hazards, and undesirable views. Any effects resulting from oil and gas activities under any alternative are assumed to be minor and short term.

Effects on Recreation from Travel Management

Management of travelways would be done in compliance with the *Forest Plan* and coordinated with other resource management activities. There would be only minor and shortterm negative effects on recreation from travel management activities. However, travel management has the potential to increase accessibility to the different recreation settings and dispersed and developed recreation sites. Travelways will also improve user distribution in the different settings and between the developed and dispersed recreation sites. These would be longterm positive effects.

Effects on Recreation from Other Resource Management Activities

The following resource management activities were evaluated but were found to have little or no effect on recreation uses, given the assumptions of this analysis: wildlife management, scenery management, intermix area management, range management/grazing (Recreation access and use within riparian areas may be affected due to livestock concentrations where grazing permits exist.), heritage resource management, fire management, and Research Natural Areas. Research Natural Areas are few in number, occur in semiprimitive nonmotorized and primitive areas. The only recreation use allowed is minimum dispersed use. No developed recreation or motorized

use has been allowed in order to protect the integrity of the research area and its values. Refer to Appendix B for additional information.

CUMULATIVE EFFECTS SUMMARY

Generally, given the best information available at this time the input from all types of effects indicates that negative effects are minimal. Regardless of the alternative, all effects on recreation are considered to range from low and shortterm and indirect to unknown or none.